

WHAT IS CLAIMED IS:

1. A method for making yarns of bulked continuous filaments (BCF) comprising the steps of:
 - (a) melt-spinning a polymeric material to form multiple filaments thereof followed sequentially by
 - (b) drawing and texturing the filaments to form the yarns of BCF, wherein
 - (c) said step of texturing the filaments includes operating a fluid jet texturizer at a sufficiently low fluid jet velocity and a sufficiently high fluid jet temperature to obtain a yarn skein shrinkage of less than about 0.50 inch.
2. The method of claim 1, wherein the polymeric material is nylon-6, and wherein step (c) is practiced to obtain alpha-crystalline contents in the BCF of at least about 45%.
3. The method of claim 2, wherein step (c) is practiced to obtain a yarn skein shrinkage of about 0.25 inch or less.
4. The method of claim 3, wherein step (c) is practiced to obtain alpha-crystalline contents in the BCF of between about 45% to about 55%.
5. The method of claim 1, wherein step (c) is practiced to obtain a yarn skein shrinkage of about 0.25 inch or less.

FOOT " 22478550

6. The method of claim 1, wherein the polymeric material is a polyester, polyamide or polyolefin.
7. The method of claim 1, wherein the polymeric material is nylon.
8. The method of claim 7, wherein the polymeric material is nylon-6.
9. A bulked continuous filament (BCF) yarn made by the method of any one of claims 1-8.
10. A nylon-6 yarn comprised of bulked continuous filaments (BCF) exhibiting a yarn skein shrinkage of less than about 0.50 inch, and alpha-crystalline contents in the BCF of at least about 45%.
11. The yarn of claim 10, wherein the alpha-crystalline contents in the BCF are between about 45 to about 55%.
12. The yarn of claim 11, wherein the yarn skein shrinkage is about 0.25 inch or less.
13. The yarn of claim 10, wherein the yarn skein shrinkage is about 0.25 inch or less.
14. A system for making yarns of bulked continuous filaments comprising:
 - a spinning head for melt-spinning a polymeric material to form multiple filaments thereof;

FOOTNOTES

a draw zone downstream of said spin head for drawing the melt-spun filaments; and
a texturing unit downstream of the draw zone for texturing the melt-spun, drawn filaments; wherein
the texturing unit includes a fluid jet texturizer operable at a sufficiently low fluid jet velocity and a sufficiently high fluid jet temperature to obtain a yarn skein shrinkage of less than about 0.50 inch.

15. The system of claim 14, further comprising a finish applicator downstream of said spinning head to apply a liquid finish to the filaments.

16. The system of claim 14, further comprising a winder downstream of said texturing unit to wind the BCF yarn into a yarn package.

0981432 101801
TOP OF PAGE